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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,475	07/03/2007	Yuichiro Ogawa	128,593	3013
25944 7590 10/29/2010 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850				
EXAMINER SORKIN, DAVID L.				
ART UNIT 1774		PAPER NUMBER		
NOTIFICATION DATE 10/20/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/586,475

**Applicant(s)**

OGAWA, YUICHIRO

**Examiner**

DAVID L. SORKIN

**Art Unit**

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 September 2010.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 21 September 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

3. Claim 1 is rendered indefinite by the used of open "comprising" language for the gear casing followed by the phase "further consisting of".

4. Claim 1 is further rendered indefinite because, having recited a drive pinion, a driven pinion and "a pinion", subsequent references to "the pinion" are ambiguous.

5. Claim 1 is further rendered indefinite by the phrase "a pinion substantially conforming in size and shape to the outer circumferential profile of the pinion.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The amendment to claim 1 requiring the gear casing to have "a plurality of openings" is considered new matter. Really there is just one 4-leaf clover shape opening.

8. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Firstly, there is no one particular driven pinion for

which all the material flows between it and the drive pinion. Secondly, there is no indication in the specification that material cannot flow between teeth of a driven pinion and an outer wall of the casing.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 3, 4 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (US 1,595,470). Regarding claims 1 and 9, Johnson discloses an extruder system with a gear pump, comprising an extruder (10,12) for axially extruding a material in a barrel of an extrusion screw arranged in the barrel, and a gear pump comprising a driving pinion (17) arranged coaxially to the extrusion screw and fixedly secured to a tip end of the extrusion screw, at least one driven pinion (18) meshed with, and driven by the driving pinion and rotatable about a rotation shaft (27) that is parallel to a rotation shaft of the extrusion screw, and a gear casing accommodating these pinions therein, said gear casing comprises side plates (15,33) arranged on both axial sides of the pinions leaving a small clearance therefrom, and extending perpendicularly to the rotational shaft of the extrusion screw, and a casing body arranged between the side plates and enclosing a space on a radially outer side of the pinions (see Fig. 1); the gear casing further consisting of a plurality of openings, each opening houses a pinion substantially conforming in size and shape to an outer circumferential profile of the

pinion, whereby the space on the radially outer side of each pinion is minimized so that the predetermined amount of material extruded flows between intermingling teeth of the pinions in operation (see Fig. 3); said rotational shaft of the driven pinion is fixedly secured to the side plates (see Fig. 5); and said side plates include a side plate (15) situated on the suction adjacent to the extrusion screw and a side plate (33) situated on the discharge side remote from the extrusion screw, said side plate on the suction side having a suction port (21) that is arranged opposite to that side of engagement region between the driving pinion and the driven pinion, where their teeth are being disengaged from each other, and said side plate on the discharge side having a discharge port (23) that is arranged opposite to that side of the engagement region between the driving pinion and the driven pinion, where their teeth are being engaged from each other, said suction port and said discharge port being maintained out of axial communication with each other by said pinions. Regarding claim 3, said side plates on the suction and discharge sides are formed with recesses (see Figs. 2 and 3). Regarding claim 4, the casing includes a cooling jacket (13,53).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 1,595,470). The system of Johnson was discussed above. It would

have been obvious to one of ordinary skill in the art to have utilized a well know type of gear teeth such as bevel gear teeth. The side plates on the suction and discharge sides are formed with recesses (see Figs. 2 and 3). The casing includes a cooling jacket (13,53).

### ***Response to Arguments***

13. Really, the casing of the instant invention just has one 4-leaf clover shape opening. Johnson and the instant invention are the same in this regard.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID L. SORKIN whose telephone number is (571)272-1148. The examiner can normally be reached on Mon.-Fri. 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter D. Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DAVID L. SORKIN/  
Primary Examiner, Art Unit 1774